



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,250	04/05/2001	Jurgen Kleinwachter	KLEINWACHTER-3	5288
20151	7590	05/19/2006	EXAMINER	
HENRY M FEIEREISEN, LLC 350 FIFTH AVENUE SUITE 4714 NEW YORK, NY 10118				DIAMOND, ALAN D
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/827,250	KLEINWACHTER	
	Examiner	Art Unit	
	Alan Diamond	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 February 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 13,14 and 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 13,14 and 29 is/are allowed.
- 6) Claim(s) 22-28,31 and 32 is/are rejected.
- 7) Claim(s) 30 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Comments

1. The objection to the disclosure has been overcome by applicant's amendment of the claims.
2. The Examiner notes that claims 2-9 and 15-21 have been canceled. Accordingly, the art rejections over these claims are now moot. Claims 13, 14, and new 22-32 are pending in the application.
3. The rejection of claim 13 under 35 USC 112, second paragraph, has been overcome by Applicant's amendment of the claim.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 22-26, 31, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 is incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship between the optical lens system at line 6 with the rest of the device. It is not clear how the optical lens system is related to the recited plurality of modular optical elements and to the recited energy collection and converting system. The same applies to dependent claims 23-26 and 31.

Claim 24 is indefinite because “the optical lens system inside each pillow” at lines 1-2, and “the lens system in each of the pillows” at lines 4-5, lack positive antecedent support in claims 23 and 22. The same applies to dependent claim 25.

Claims 24 and 31 are indefinite because “the light collection and converting system” at lines 6-7 of claim 24 and at line 2 of claim 31 lack positive antecedent support in claims 23 and 22. It is suggested that “light” at line 6 of claim 24 and at line 2 of claim 31 be changed to “energy”. The same applies to dependent claim 25.

Claim 31 is indefinite because “the solar cell” at line 1 lacks positive antecedent support in claim 24.

Claim 32 is indefinite because “The greenhouse” at line 1 lacks positive antecedent support in claim 27.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 27 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wenger (CH 591090).

Wenger teaches an optical lens comprising two transparent sheets (2, 3) supported along their circumference by a mechanically stable frame (5) and forming a pillow (see Figure 2; and the entire text of the document). The pillow seen in Wenger's Figure 2 is an optical lens in and of itself (see entire document), and thus, there is an optical lens system arranged within the pillow. Furthermore, the pillow is inflated with water (see the entire document), which it is the Examiner's position reads on the instant light collection and conversion system within the pillow because light will heat the water, i.e., light energy is converted to heat. The pillow is inflated with pressurized filling liquid (see the entire document), and thus, it is the Examiner's position that it is also inflatable with compressed air. Since Wenger teaches the limitations of the instant claim, the reference is deemed to be anticipatory.

In addition the instant requirement that the pillow is inflatable with compressed air would obviously have been present once Wenger's optical lens has been provided.

Note In re Best, 195 USPQ at 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

Claim Rejections - 35 USC § 103

9. Claims 22, 23, 28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenger (CH 591090) in view of Maine (U.S. Patent 4,057,048).

Wenger teaches an optical lens comprising two transparent sheets (2, 3) supported along their circumference by a mechanically stable frame (5) and forming a pillow (see Figure 2; and the entire text of the document). The pillow seen in Wenger's Figure 2 is an optical lens in and of itself (see entire document), and thus, there is an

Art Unit: 1753

optical lens system arranged within the pillow as per instant claim 28. Furthermore, the pillow is inflated with water (see the entire document), which it is the Examiner's position reads on the instant light collection and conversion system within the pillow because light will heat the water, i.e., light energy is converted to heat. The pillow is inflated with pressurized filling liquid (see the entire document), and thus, it is the Examiner's position that it is also inflatable with compressed air. Wenger teaches the limitations of the instant claims, other than the differences which are discussed below.

Wenger does not specifically teach a plurality of its lenses forming an envelope for a greenhouse. Maine teaches a solar heat collector comprising a roof of interconnected convex lenses (30) designed so that solar radiation transmitted through them will be focused or concentrated on a heat collecting means within the enclosure (see Figure 2; and col. 3, lines 1-54). An advantage of Maine's structure is maximum utilization of the sun's rays during all daylight hours (see col. 2, lines 25-30). The structure can be a "greenhouse", e.g., it can be used for agricultural purposes (see col. 2, lines 50-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a plurality of Wenger's optical lenses so that they are interconnected and form the roof of a heat collecting structure as in Maine because Maine's structure provides the advantage of maximum utilization of the sun's rays during all daylight hours.

With respect to claim 32, Wenger teaches that its transparent sheets (2, 3) can be made of, for example, polyethylene or polyvinyl chloride (see col. 1, lines 41-43). Wenger does not specifically teach said transparent sheets (2, 3) can be made from

Art Unit: 1753

fluoropolymer. However, in the absence of anything unexpected, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used any conventional polymeric material, such as a fluoropolymer, e.g., polyvinyl fluoride or polyvinylidene fluoride, for said transparent sheets (2, 3), in place of the polyethylene or polyvinyl chloride, with the expectation that a working optical lens would be obtained.

Response to Arguments

10. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new grounds of rejection set forth above which are necessitated by applicant's amendment.

Allowable Subject Matter

11. Claims 13, 14, and 29 are allowed.

12. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents 3,125,091, 4,051,834, 4,485,804, 4,552,126, and 6,111,190, and GB 1,550,488 are hereby made of record.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1753

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Diamond whose telephone number is 571-272-1338. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alan Diamond
Primary Examiner
Art Unit 1753

Alan Diamond
May 12, 2006

